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PROVISIONAL INTELLIGENCE REPORT

INDEXES OF HOUSEHOLD CONSUMPTION IN THE USSR 1928-55



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PROVISIONAL INTELLIGENCE REPORT

INDEXES OF HOUSEHOLD CONSUMPTION IN THE USSR
1928-55

CIA/RR PR-151

(ORR Project 30.830)

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FOREWORD

This report examines household consumption in the USSR, identifies the contents and relative importance of different components of household consumption, and presents indexes of movements of household consumption and its components for the period 1928-55. Trends in each of the three principal components of consumption are given separate treatment, including an appraisal of the effect of the consumer goods program of 1953-54 on each component. An attempt is made to evaluate Soviet levels of consumption by comparing Soviet production per capita of individual consumer goods with that of the US and Western European countries. The probable extent of dissatisfaction among Soviet consumers with Soviet levels of consumption is examined.

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INDEXES OF HOUSEHOLD CONSUMPTION IN THE USSR*
1928-55

Summary

The rapid growth of the Soviet economy during the Five Year Plans, which began in 1928, has been achieved at the expense of household consumption.** Between 1928 and 1955, Soviet gross national product (GNP) more than tripled, whereas aggregate household consumption increased by about 70 to 80 percent, and household consumption per capita by 30 to 40 percent.

During the same period, consumption of nonfood consumer goods more than tripled and consumption of services more than doubled, whereas consumption of food -- which represented 60 percent of total household consumption in 1955 -- increased by only 25 percent and on a per capita basis actually registered a slight decline.

Much of the lag in the increase in consumption behind that of GNP took place before 1948. Between 1948 and 1955, consumption increased at a high rate, matching the increase in GNP, and by 1950 consumption had regained the previous peak achieved in 1940. The continuation of high annual increases beyond the recovery of the previous peak indicates an increased postwar emphasis in the USSR on raising levels of consumption.

Despite the postwar improvements, Soviet levels of consumption continue to be extremely low compared with those of Western countries. No firm evidence is available, however, which would indicate serious dissatisfaction among Soviet consumers.

* The estimates and conclusions contained in this report represent the best judgment of ORR as of 1 October 1956.

** Household consumption is defined as total receipts by families and individuals of goods and services for consumption.

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I. Introduction.

A. Background.

Beginning with the First Five Year Plan (1928-32), the USSR began a program of forced industrialization which is still in progress and which has achieved results remarkable by Western standards. Throughout the period 1928-55, Soviet GNP increased 4.2 percent annually compared with 3 percent annually in the US. 1/* The output of basic heavy industries increased by about 15 percent annually before World War II and from 10 to 15 percent annually since World War II. 2/

These high rates of growth have been achieved by allocating a much higher share of GNP to capital formation than in the US or in any other country of Western Europe and by directing capital formation into industries which produce capital goods. 3/ Since 1928, with the exception of the years during and immediately after World War II, the USSR has reinvested 20 percent or more of GNP, and industry (primarily heavy industry) has received 50 percent of the total amount reinvested compared with 25 percent in the US. 4/

B. Definitions.

The term level of consumption as used in this report refers to the actual consumption of goods and services as opposed to the terms standard of consumption, which generally refers to desired levels of consumption, and living level or living standard, which generally refer to a much broader concept including such things as working conditions, freedom of choice, and security.

The term household consumption refers to receipts by individuals and families (including military personnel) of goods and services. These receipts include actual goods obtained from state, cooperative, and collective farm market retail establishments; from self-owned garden plots on collective farms; and imputed services rendered by owner-occupied dwellings. This report takes into account neither changes in household inventories nor certain services supplied free of direct charge by the Soviet government such as military security and government administration.**

* For serially numbered source references, see Appendix E.

** For a discussion of the treatment of medical and educational services, which are also provided free of direct charge, see methodology, Appendix C.

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A more precise definition of household consumption can be given in terms of its measurement. There are at least two distinct ways in which household consumption of consumer goods* can be measured. The first, or direct, method is to add (1) total retail sales** (including collective farm market sales); (2) consumption by producers (for example, consumption of food from private garden plots by collective farmers); and (3) military and forced labor subsistence. The second, or indirect, method is to subtract from total production of individual consumer goods and net imports (1) seed, feed, and waste in the case of agricultural products; (2) industrial use; and (3) net additions to state reserves.*** In principle the two methods yield the same result. Both methods are utilized in this report, the indirect method in the construction of the individual indexes and the direct method in the construction of the weights employed in combining the indexes for the principal components of total consumption.

Total household consumption thus defined amounted to nearly two-thirds of Soviet GNP in 1955, valued at market prices which include the turnover tax. 5/ Total household consumption has been grouped into three components for presentation and analysis: food, nonfood consumer goods, and consumer services. The relative importance of the three components, both in household cash expenditures and in aggregate household consumption (including imputations), is shown in Table 1.****

A sample of items to be included in the index for each of these three components was drawn. Insofar as possible the specific items were selected on the basis of their representativeness and importance in the total, but the overriding consideration was the availability of satisfactory data. For example, flour was substituted for bread in the index of food because of the complete lack of reliable data on bread for the years since World War II.***** On

* The treatment accorded to consumer services is similar. See methodology, Appendix C.

** After deducting sales to institutions.

*** Other deductions, such as net increases in producer or retail inventories, also could have been made. For the commodities under consideration in this report, however, it is believed that for practical purposes such deductions can be omitted.

**** Table 1 follows on p. 4.

***** The effect of the substitution of flour for bread on the index of total consumption is to give the index a slight upward bias by reducing the weight for consumption of food.

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Table 1

Relative Importance of Food, Nonfood Consumer Goods, and Consumer Services
in Household Consumption in the USSR
1955

Item	Household Cash Expenditures	Household Consumption		Percent
		Excluding Medical and Educational Services	Including Medical and Educational Services	
Food	50	60		54
Nonfood consumer goods	34	24		22
Consumer services				
Excluding medical and educational services	16	16		
Including medical and educational services				24
Total	<u>100</u>	<u>100</u>		<u>100</u>

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the other hand, although satisfactory data on production of automobiles were available, automobiles were excluded from the index because few are attainable for private ownership.

It was not possible to construct separate indexes of subgroups of the food or the nonfood components of the index of total consumption, because of inadequacies in the data. Although these inadequacies are of relatively minor importance to the indexes of food and nonfood consumer goods, such inadequacies could seriously impair the reliability of indexes of subgroups of food or nonfood components. For example, the substitution of flour for bread would gravely weaken an index of a subgroup of the index of food, such as processed food, but probably would have only a minor effect on an entire index of food.

II. Indexes of Household Consumption in the USSR.*

A. Long-Range Comparisons.**

A comparison of levels of consumption in Soviet households in 1928 with those in 1955 emphasizes graphically the cost of the Soviet program of forced industrialization to the average citizen. Whereas GNP more than tripled between 1928 and 1955, Table 2*** shows that during the years 1928-55 aggregate household consumption increased by only 69 percent if medical and educational services are excluded and by 82 percent if these services are included. From 1940, the previous peak year, to 1955 the increase in aggregate household consumption amounted to no more than 35 to 39 percent. All indexes presented in this report have a margin of error of plus or minus 5 percent except the indexes of consumer services, which have a margin of error of plus or minus 10 percent.

Table 3**** shows that during the years 1928-55 household consumption per capita increased by only 30 percent if medical and educational services are excluded and by 40 percent if these services are included. During the years 1940-55 the increase in household consumption per capita amounted to only 32 to 35 percent.

* Political boundaries used throughout this report are those of the year in question unless otherwise indicated.

** For the basic data on population, production, and consumption for the summary tables shown in the text, see Tables 14 through 22, Appendix B.

*** Table 2 follows on p. 6.

**** Table 3 follows on p. 6.

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Table 2

Indexes of Aggregate Household Consumption in the USSR a/
Selected Years, 1928-55

1955 = 100				
Item	1928	1937	1940	1955
Aggregate household consumption b/				
Excluding medical and educational services	59	64	74	100
Including medical and educational services	55	64	72	100

- a. Political boundaries are those of the year in question.
b. For an explanation of the use of alternative indexes, see methodology, Appendix C.

Table 3

Indexes of Household Consumption Per Capita in the USSR a/
Selected Years, 1928-55

1955 = 100				
Item	1928	1937	1940	1955
Household consumption per capita b/				
Excluding medical and educational services	77	76	76	100
Including medical and educational services	71	76	74	100

- a. Political boundaries are those of the year in question.
b. For an explanation of the use of alternative indexes, see methodology, Appendix C.

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The greatest increase registered during the years 1928-55 was in consumption of nonfood consumer goods, with consumer services a close second. Table 4 shows indexes of aggregate household consumption of consumer goods and services for selected years, 1928-55. The smallest increase was shown in the consumption of food. Because of the importance of food in the average household budget, the slow increase in total consumption was primarily the result of the slow increase in consumption of food.

Table 4

Indexes of Aggregate Household Consumption
of Consumer Goods and Services in the USSR a/
Selected Years, 1928-55

1955 = 100				
Item	1928	1937	1940	1955
Food				
Laspeyres index <u>b/</u>	77	70	79	100
Paasche index <u>b/</u>	83	71	80	100
Arithmetic mean	80	70	80	100
Nonfood consumer goods				
Laspeyres index <u>b/</u>	20	55	60	100
Paasche index <u>b/</u>	29	54	59	100
Arithmetic mean	24	54	59	100
Consumer services <u>c/</u>				
Excluding medical and educational services	36	56	72	100
Including medical and educational services	28	57	67	100

a. Political boundaries are those of the year in question.

b. For an explanation of the Laspeyres and Paasche indexes, see methodology, Appendix C.

c. Because of the lack of data, the Laspeyres and Paasche indexes were not computed for consumer services. For an explanation of the alternative indexes including and excluding medical and educational services, see methodology, Appendix C.

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Table 5 shows indexes of household consumption per capita of consumer goods and services for selected years, 1928-55. On a per capita basis, consumption of food actually declined by about 4 percent during the years 1928-55. If the qualitative downward shift in the protein-to-starch ratio is taken into account, the decline was even greater.*

Table 5

Indexes of Household Consumption Per Capita
of Consumer Goods and Services in the USSR a/
Selected Years, 1928-55

1955 = 100				
Item	1928	1937	1940	1955
Food				
Laspeyres index b/	100	83	81	100
Paasche index b/	108	84	82	100
Arithmetic mean	104	83	82	100
Nonfood consumer goods				
Laspeyres index b/	26	65	62	100
Paasche index b/	38	64	61	100
Arithmetic mean	31	64	61	100
Consumer services c/				
Excluding medical and educational services	47	66	74	100
Including medical and educational services	36	67	69	100

a. Political boundaries are those of the year in question.

b. For an explanation of the Laspeyres and Paasche indexes, see methodology, Appendix C.

c. Because of the lack of data, the Laspeyres and Paasche indexes were not computed for consumer services. For an explanation of the alternative indexes including and excluding medical and educational services, see methodology, Appendix C.

* The protein-to-starch ratio is discussed in C and in III, below.

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B. Postwar Comparisons.

Household consumption in the USSR has made a striking recovery from wartime and early postwar lows, registering increases equal to or in excess of the growth of GNP. Table 6 shows that during the years 1948-55 aggregate household consumption increased by 64 percent, regaining in 1950 the previous peak reached in 1940.*

Table 6

Indexes of Aggregate Household Consumption
of Consumer Goods and Services in the USSR
Selected Years, 1948-55

1955 = 100					
Item	1948	1950	1952	1954	1955
Food	67	77	86	98	100
Nonfood consumer goods	44	59	76	95	100
Consumer services <u>a/</u>	66	76	85	96	100
Aggregate household consumption <u>a/</u>	62	73	83	97	100

a. Medical and educational services are included. For these years there is little difference between the alternative service indexes.

Increases in the early part of this period may be accounted for by the initial low levels of output resulting from the substantial depletion of capital resources in agriculture and light industry during World War II.** Continuation of the high annual

* The index of total consumption in 1948-55 presented in this report differs from that presented in source 6/. The index presented in that source is the arithmetic mean of two indexes, one constructed with 1950 weights and the other with 1955 weights, whereas the present index is weighted by prices in 1955.

** For example, Soviet agriculture as a whole emerged from World War II with greatly depleted mechanized equipment, and much of that was badly worn. The textile industry lost about 20 percent of its cotton spindles and 13 percent of its looms. 7/

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increases well beyond the previous peak, however, indicates an increased postwar emphasis on raising levels of consumption in the USSR.

Table 7 shows indexes of household consumption per capita for selected years, 1948-55.

Table 7

Indexes of Household Consumption Per Capita
of Consumer Goods and Services in the USSR
Selected Years, 1948-55

1955 = 100					
Item	1948	1950	1952	1954	1955
Food	75	84	90	100	100
Nonfood consumer goods	49	64	80	96	100
Consumer services a/	74	82	89	98	100
Total household consumption a/	70	79	87	99	100

a. Medical and educational services are included. For these years there is little difference between the alternative indexes.

The indexes presented in Tables 6 and 7, when compared with those presented in Tables 4* and 5,** show that, despite the high annual increases in consumption of food since 1948, the peak consumption of food per capita reached in 1928 has never been regained. Consumption of nonfood consumer goods, however, more than doubled during the period, regaining the previous peak of 1940 by 1950. The accompanying chart*** compares prewar with postwar rates of growth in household consumption per capita in the USSR. Indexes are included for total household consumption and for consumption of food, nonfood consumer goods, and consumer services for the period 1928-55.

* P. 7, above.

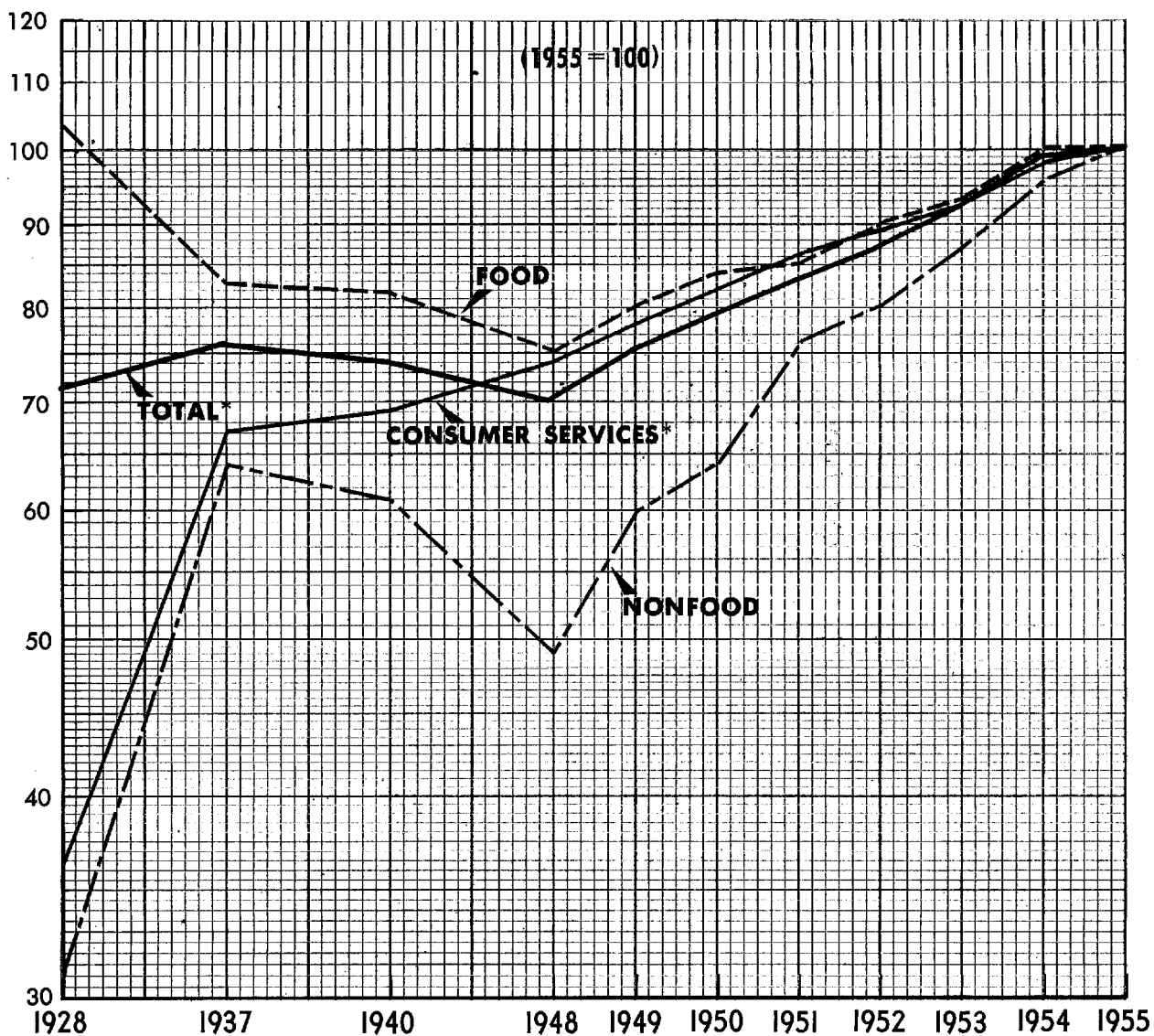
** P. 8, above.

*** Following p. 10.

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INDEXES OF HOUSEHOLD CONSUMPTION PER CAPITA
Selected Years, 1928-55



**Includes Medical and Educational Services.*

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C. Food.

In 1955, consumption of food, the most important of the three components of household consumption defined in this report, amounted to about 50 percent of household cash expenditures and to about 60 percent of total household consumption in the USSR.

Between 1928 and 1955, household consumption of food, as shown in Tables 4* and 5,** increased only between 20 and 30 percent on an aggregate basis and declined by about 4 percent on a per capita basis. During this period, despite substantial increases in the consumption of minor food products, consumption of the three most important items in the index of food as shown in Table 8 -- flour, meat, and fluid milk -- increased less than did the population or actually declined.

Table 8

Relative Importance of Selected Items
in Household Consumption of Food
in the USSR a/
1955

<u>Item</u>	<u>Percent</u>
Flour	37
Meat	15
Fluid milk	9
Sugar	7
Canned goods	7
Confections	5
Other <u>b/</u>	20
Total	<u>100</u>

a. These estimates are based on the data contained in the index in which flour has been substituted for bread.

b. This figure includes such items as potatoes, fish, and vegetables, which individually amount to less than 5 percent of consumption of food in terms of prices in 1955.

* P. 7, above.

** P. 8, above.

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A further impoverishment of the diet of the Soviet people resulted from a shift in the ratio of the consumption of some major components of the diet. Table 9 compares the Soviet diets in 1928 and in 1955. Consumption of the high-quality, high-cost protein foods, meat and milk, shows declines of 24 and 52 percent, respectively, since 1928. Consumption of flour, the major food staple in the USSR, declined by 3 percent. Losses of starch from the diet because of a shortage of flour were offset by the increasing availability of potatoes. The protein components, which suffered a greater loss, were replaced largely by concentrated, inexpensive, and nonnutritive sugar. Increases in fish and vegetables in the diet, however, have served to some extent to lessen the severity of these nutritively inferior substitutes.

Table 9

Comparison of Diets in the USSR
As Indicated by Consumption Per Capita of Major Components
1928 and 1955

<u>Dietary Component</u>	<u>Unit</u>	<u>Consumption Per Capita</u>		<u>Percent Change</u>
		<u>1928</u>	<u>1955</u>	
Flour	Pound	468	452	- 3
Meat	Pound	51	39	- 24
Milk	Liter	192	92	- 52
Sugar	Pound	17	44	+ 159
Potatoes	Pound	272	387	+ 42
Vegetables	Pound	131	185	+ 41
Fish	Pound	10	21	+ 111

In the latter half of 1953 the Soviet government was concerned not so much by the slow rate of increase of consumption of food during the postwar period but apparently by the failure of consumption of food per capita to increase above that of 1928 -- consumption of food per capita in 1952 was between 10 and 17 percent below that in 1928. The Soviet Council of Ministers issued a series

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of decrees* calling for or designed to effect increases, which in some cases were drastic, in the production and availability of food products in 1954 and in 1955. The decrees, which were widely regarded as heralding a "new course" in Soviet economic policy, called for agricultural measures to increase production and marketing by farmers and for a general upward revision of the goals for production set in 1952 by the Fifth Five Year Plan (1951-55).

The goals for production in 1955 of a wide range of processed and semiprocessed food products, including some of the most important items in household consumption, were increased. At the same time, imports of food were increased and substantial quantities of storable foodstuffs were released from state reserves so that consumption could be immediately increased. The measures directly affecting agriculture were designed to increase production of food crops and livestock, including those utilized primarily as raw materials in food processing plants and in the production of most nonfood consumer goods. Implementation of the program brought about an increase in the rate of growth of consumption of food in 1954 compared with 1953 (see Tables 6** and 7***), attributable in part to increased imports and to reductions in state reserves.

In late 1954 and early 1955, however, the revised goals for production of most foods were abandoned, and in most cases even the original goals for 1955, which had been set in 1952, were unfulfilled. The increase in consumption of food in 1955 above that of 1954 dropped below the rate that prevailed in the years 1951 and 1952 before the "new course."

The inability to meet planned goals probably is attributable primarily to failures in the supply of agricultural raw materials to the food processing industry. Apparently recognizing this weakness in supply, the Soviet government has attempted to increase agricultural production. Decrees have been issued which call for measures to be taken, ranging from initiation of the "new lands" program first announced in March 1954 to the milk decree of February 1956.

On balance, it seems probable that the net effect of the "new course" on consumption of food through 1955 has been small.

* For a listing of the more important of these decrees, see Appendix A.

** P. 9, above.

*** P. 10, above.

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D. Nonfood Consumer Goods.

Consumption of nonfood consumer goods in the USSR has shown the greatest increase of the principal components of household consumption. The increase in consumption of nonfood consumer goods between 1928 and 1955 ranged from 2-1/2 to nearly 4 times, depending on the index number formula used.

Consumption of the three most important items -- cotton fabrics, leather footwear, and sewn garments -- showed relatively moderate increases between 1928 and 1955. Because of its low initial base, consumption of consumer durable goods, including radio and television receivers, registered much greater increases. The high rates of growth of consumption of durable goods have not affected the nonfood index significantly, however, because of the minor importance of durable goods.

Table 10 shows the relative importance of selected items in household consumption of nonfood consumer goods in the USSR in 1955.

Table 10

Relative Importance of Selected Items in Household Consumption
of Nonfood Consumer Goods in the USSR a/
1955

<u>Item</u>	<u>Percent</u>
Cotton fabrics	24
Leather footwear	19
Sewn garments	15
Silk and artificial silk fabrics <u>b/</u>	13
Cigarettes	7
Other <u>c/</u>	22
Total	<u>100</u>

a. These estimates are based on the data contained in the index.

b. This item consists primarily of rayon fabrics.

c. This figure includes such items as woolen and linen fabrics, hosiery, and consumer durable goods, which individually amount to less than 7 percent of household consumption of nonfood consumer goods.

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Despite the substantial increases in the consumption of nonfood consumer goods which were attained between 1948 and 1952 and planned for 1955, in October 1953 the Soviet Council of Ministers issued a decree calling for an upward revision of goals for production in 1955 under the Fifth Five Year Plan. The decree appears to have had little influence, however, on total consumption of nonfood consumer goods. The goal for production was increased for only 1 of the 3 most important items in the nonfood consumer goods index, sewn garments. With few exceptions the greatest increases in production were planned for consumer durable goods, which are relatively unimportant in total consumption of nonfood consumer goods in the USSR. In 1956 the USSR announced that almost none of the revised goals had been reached and that even the original goals for 1955 were not reached for two of the most important items in the index of nonfood consumer goods, cotton fabrics and leather footwear.

Part of the reason for the failure of the decree on consumer goods to influence the index of the consumption of nonfood consumer goods may be that the program of consumer goods is not reflected adequately in the index of nonfood consumer goods. Shortcomings of the data used in construction of the index make it insensitive to short-term movements in consumption. These shortcomings are as follows:

1. Much of the emphasis of the program was placed upon improving the quality and assortment (product mix) of nonfood consumer goods. The index of nonfood consumer goods is insensitive to changes in quality, and it utilizes, where pertinent, an unchanged product mix derived from the 1941 Plan.

2. Implementation of the decree on consumer goods was achieved in part by reducing state reserves and by increasing imports of nonfood consumer goods. Because of the lack of satisfactory data, no adjustment of the index of nonfood consumer goods for changes in state reserves has been made. Because of the minor importance of foreign trade in the principal items in the index -- less than 5 percent of Soviet production in most cases -- no adjustment has been made to reflect changes in foreign trade.

On balance, however, the net effect of the consumer goods program of 1953-54 on the consumption of nonfood consumer goods through 1955 probably was small.

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E. Consumer Services.

Consumer services, including medical and educational services, have shown the second greatest increase between 1928 and 1955 of the three components of Soviet household consumption. This increase reflects both the low levels of consumption of consumer services in 1928 and the heavy emphasis placed upon expanding these services during the Five Year Plans. By 1955, aggregate consumption of consumer services, including medical and educational services, had more than doubled, and consumption per capita of consumer services had increased about 180 percent compared with 1928.

Consumption of housing and utilities, the most important single component of consumer services, showed the smallest increase between 1928 and 1955, offsetting much greater increases of other consumer services which received greater priority from the Soviet government. Between 1928 and 1955, housing and utilities, including imputed rent on owner-occupied dwellings, increased by 75 percent. Consumption of educational and medical services, which started from a lower base and which received a much higher priority, increased 5 times and 7 times, respectively, during the same period.

Table 11* shows the relative importance of consumer services in 1955.

III. Levels of Consumption.

The extent to which the consumer in the USSR suffers a low level of consumption is suggested by comparisons of Soviet production per capita of consumer goods with that of Western countries. Although the comparisons which follow do not take into account differences in quality and in the extent of foreign trade or industrial use, the comparisons do indicate that, despite impressive improvement since 1948, the level of consumption in the USSR in 1955 was exceedingly low by Western standards.** These comparisons serve to deflate the official claims which make use of impressive percentage increases in production over 1940 and 1948 to measure progress in the light and the food industries.

* Table 11 follows on p. 17.

** If adjustments for foreign trade had been made, they would have shown the USSR in an even less favorable light compared with the [REDACTED] whereas Soviet imports of consumer goods are negligible, those of the [REDACTED] are substantial.

25X6A

25X6A

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Table 11

Relative Importance of Consumer Services in the USSR
1955

Item	Percent	
	Excluding Medical and Educational Services	Including Medical and Educational Services
Housing and utilities a/	51	29
Transportation	30	18
Personal services and entertainment	14	8
Communications	5	3
Medical services		16
Educational services		26
Total	<u>100</u>	<u>100</u>

a. Figures include imputed rent on owner-occupied dwellings.

Table 12* compares annual production per capita of selected food products in the USSR with that in the US and the [redacted] In 1937 the average weekly supply of food of a Soviet citizen included 8 pounds of flour and less than 1 pound of meat compared with 3 pounds of flour and 2-1/2 pounds of meat for a US citizen. Moreover, the flour available to the Soviet consumer would have been made to a great extent from rye or other less preferred grain, whereas nonwheat flours in the US constitute only a small part of total consumption of flour. 25X6A

By 1954, Soviet production had increased sufficiently to provide approximately 9 pounds of flour and four-fifths pound of meat per capita per week. At the same time, US production was sufficient to provide 3 pounds of meat and 2-1/2 pounds of flour per capita per week. Meanwhile, Soviet production per capita of sugar, which had been produced at approximately the same rate in both the US and the USSR since 1937, had declined by 6 percent by 1954.

* Table 12 follows on p. 18.

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Table 12

Production Per Capita of Selected Food Products
in the USSR, the US, and the [REDACTED] a/ 25X6A
1937 and 1954

Item	1937			1954		
	USSR b/	US	25X6	USSR b/	US	25X6
Flour c/	440	151	[REDACTED]	452	136	[REDACTED]
Meat	31	122	[REDACTED]	45	156	[REDACTED]
Sugar	32	34	[REDACTED]	30	31	[REDACTED]
Butter	2.2	16.5	[REDACTED]	4.2	10.1	[REDACTED]
Cheese	0.3	5.0	[REDACTED]	1.0	8.5	[REDACTED]

a. 8/

b. Political boundaries are those of the year in question.

c. US and [REDACTED] flour includes wheat flour only, because practically all flour consumed in these countries is made from wheat.

Because the US enjoys one of the highest levels of consumption in the world, a comparison of the USSR with the US may tend to exaggerate the inferiority of the Soviet level of consumption. A comparison of the Soviet weekly supply of food with that of the [REDACTED] in 1950, when some [REDACTED] wartime rationing remained in effect, may be more meaningful. In that year, [REDACTED] production per capita provided 50 percent more meat and about 60 percent less flour than that of the USSR. In 1954, production per capita of meat in [REDACTED] was twice that of the USSR, and in France such production was three times that of the USSR. In butter, cheese, wine, and beer, all Western countries considerably exceed the production per capita in the USSR.*

Deficiencies in the food supply of Soviet consumers are attributable, first of all, to the lag in agricultural production. The responsibility does not lie with agriculture alone, however, but in considerable measure with the light and the food industries for

* See Table 21, Appendix B.

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shortcomings in manufacturing and processing and with the wholesaling and retailing network for faulty distribution and marketing. The limited processing facilities and inadequate storage and distribution facilities, together with lack of progress in agriculture, account for the limited availability and inferior quality of Soviet food products.

Although production of clothing and footwear in the USSR increased by about 25 percent per capita between 1937 and 1954, the USSR produced only 1.3 pairs of leather footwear per capita in 1954 compared with 3.2 pairs in the US and 2.7 pairs in the [REDACTED]. Production per capita of cotton fabrics, the most important of Soviet textile and garment fabrics, was less than half that of the US and considerably less than that of the [REDACTED]. Table 13 shows the production per capita of selected nonfood consumer goods in the USSR, the US, and the [REDACTED] in 1954.

25X6A

25X6A

25X6A

Table 13

Production Per Capita of Selected Nonfood Consumer Goods
in the USSR, the US, and the [REDACTED] a/ 25X6A
1954

				25X6
Item	Unit	USSR	US	
Cotton fabrics	Meters	29	55	
Leather footwear	Pairs	1.3	3.2	
Radios	Number of persons per radio	67	16	
Washing machines	Number of persons per machine	4,235	40	
Refrigerators	Number of persons per refrigerator	2,073	N.A.	
Passenger cars	Number of persons per car	2,438	29	
a. 9/				

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25X6A

Production of durable consumer goods, such as household appliances, has increased rapidly during the postwar era; however, little progress had been made before that time. For example, in 1954 the USSR produced washing machines at the rate of 1 for every 4,000 persons compared with 1 for every 40 persons in the US; refrigerators, at the rate of 1 for every 2,000 persons; and passenger cars, at the rate of 1 for every 2,600 persons. Radios were more numerous, but the Soviet rate of production amounted only to 1 for every 67 persons compared with 1 for every 26 persons in the [REDACTED] and 1 for every 16 persons in the US.

Despite the low levels of consumption per capita indicated by these data, there is no firm evidence of serious, widespread dissatisfaction among consumers in the USSR. The average consumer, perhaps influenced by the substantial postwar improvements, apparently gives little thought to the contrast between present levels of consumption, particularly of food, and those prevailing in 1928 and earlier.

There is recent evidence, however, of considerable interest in the levels of consumption in the US and other Western countries on the part of those Soviet citizens with whom Western visitors come in contact. This evidence suggests that the average Soviet citizen, awakened by contacts with Germans and other Eastern Europeans during and after World War II, is aware that higher levels of consumption exist outside the USSR and that he may eventually insist upon higher levels of consumption for himself, even at the expense of economic growth.

IV. Conclusions.

Two points of primary importance have been derived from this report. First, the costs to the average citizen of the Soviet program of industrialization pursued during the period of the Five Year Plans have been great. Between 1928 and 1955 the increase in the levels of household consumption has fallen far short of the increase in GNP. Second, the impact of Soviet emphasis on the program for expansion of heavy industry has been felt most heavily in the area of food. Consumption of food showed the smallest gain of the three principal components of consumption and increased at a slower rate than did the population between 1928 and 1955.

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Although attributable in part to the program of agricultural collectivization, the failure of consumption of food to keep pace with the expansion of GNP and of the other components of household consumption reflects primarily the low priority assigned to agriculture by the Soviet government until 1953.

Because of the importance of food in household consumption, any successful program to raise the levels of consumption significantly in the USSR must include a major effort to increase the availability of food through a major expansion of agricultural production.

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APPENDIX A

SELECTED STATE DECREES AFFECTING THE PRODUCTION AND AVAILABILITY
OF CONSUMER GOODS IN THE USSR
1953-56

<u>Date</u>	<u>Title</u>
1953	
10 August	New Agricultural Tax Law Reducing Delivery Quotas and Excessive Taxes
7 September	Measures for the Further Development of Agriculture in the USSR
26 September	Measures for the Further Development of Livestock Production and the Lowering of Quotas for Obligatory Deliveries of Livestock Products from the Plots of Individual Kolkhoz Farmers, Workers, and Employees
29 September	Measures for Increasing Production and Procurement of Potatoes and Vegetables in Collective and State Farms, 1953 to 1955
1 October	Measures for the Further Improvement of Machine Tractor Station Operations
17 October	Measures for the Further Expansion of Goods Turnover and Improvement of the Organization of the State, Cooperative, and Collective Farm Trade
28 October	Measures for Expanding Production of Industrial Consumer Goods and Improving Their Quality
29 October	Measures for Increasing the Production of Foods and Improving Their Quality

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Date	Title
1954	
5 March	Measures for Further Increasing the Production of Grain and for Reclamation of Virgin Soil and Waste Land
27 March	Measures for Increasing the Production of Grain, 1954 and 1955
12 May	Measures to Increase Flax Growing
3 June	Measures to Increase Animal Husbandry
13 August	Introduction of Seasonal Retail Prices for Potatoes, Vegetables, and Fruit and Reduction of State Retail Prices of Vegetable Oil and Canned Vegetables
16 August	Measures for Further Development of Virgin and Fallow Land to Increase Grain Production
1955	
2 February	Measures to Increase Production of Livestock Products
25 February	Measures to Establish a New Farm Pay System to Increase the Amount of Goods Delivered
9 March	Measures to Reduce Centralized Farm Planning
21 May	Measures to Raise the Interest of Collective Farmers and Workers of MTS Brigades to Increase Corn Output in 1955
8 July	Measures to Insure Work Already Set Up and Done to Increase Agricultural Output

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Date	Title
1956	
30 January	Measures to Increase the Production and Procurement Deliveries of Potatoes and Vegetables
9 February	Measures to Increase Output of Full Cream Milk and to Improve Delivery of Milk to the Populations of Towns and Industrial Centers
9 March	Measures for the Further Development of the Initiative of Collective Farmers in Organizing Collective Farm Production and Managing the Affairs of Artels and to Increase Monthly Advance and Supplementary Payments for Collective Farm Work

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APPENDIX B

STATISTICAL TABLES

Table 14

Population of the USSR a/
Selected Years, 1928-55

<u>Millions</u>	
<u>Year</u>	<u>Population</u>
1928	152.4
1937	167.3
1940	193.0 b/
1948	176.5
1949	174.4
1950	182.5
1951	185.6
1952	188.8
1953	191.9
1954	195.1
1955	198.2

a. Figures are as of 1 July. Adjustments and interpolations are based on source 10/.

b. Figure was adjusted to include territorial increases during 1940.

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Table 15

Production of Food in the USSR a/
1928, 1937, 1940, and 1948-55

Item	Unit	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955
Fish b/	Thousand metric tons	840 d/	1,600	1,400	1,500	1,900	1,700	2,100	2,100	2,200	2,500	2,700
Meat c/	Thousand metric tons	3,900	2,400	2,900	2,400	2,800	3,100	3,000	3,200	3,700	4,000	4,000
Fluid milk	Thousand metric tons	30,000 d/	26,000	30,000	23,000	24,000	25,000	26,000	25,000	26,000	27,000	30,000
Butter e/	Thousand metric tons	82	180	220	290	320	340	350	370	380	390	460
Cheese e/	Thousand metric tons	11	24	35	37	37	48	58	67	78	87	110
Potatoes f/	Thousand metric tons	46,000	66,000	70,000	N.A.	70,000	72,000	60,000	69,000	69,000	67,000	66,000
Vegetables g/	Thousand hectares	790	1,400	1,600	N.A.	N.A.	1,200	N.A.	N.A.	1,400	N.A.	N.A.
Flour h/	Million metric tons	32	33	35	36	37	37	40	41	39	40	41
Sugar i/	Thousand metric tons	1,300	2,400	2,200	1,700	2,000	2,500	3,000	3,100	3,400	2,600	3,400
Confections j/	Thousand metric tons	100	880	790	640	810	990	1,200	1,300	1,400	1,500	1,400
Vegetable oil e/	Thousand metric tons	450	540	800	520	680	820	870	950	1,100	1,300	1,200
Canned goods e/	Million 400-gram cans	120	980	1,100	820	1,100	1,500	1,700	1,900	2,200	2,700	3,200
Beer j/	Million decaliters	27	88	125	70	97	130	150	160	180	180	180
Grape wine k/	Million decaliters	3	9	14	6.4	8.2	14	18	23	28	33	35

a. Political boundaries are those of the year in question.

b. Figures represent the state catch in round weight, excluding the collective farm catch.

c. Figures represent total Soviet production of beef, veal, mutton, lamb, goat meat, and pork on a carcass-weight basis, including bone and slaughter fat.

d. 1929.

e. Figures for butter, cheese, vegetable oil, and canned goods represent production by the food ministries only, because these ministries are the basis for statistical reporting in the USSR.

f. Figures represent the total Soviet yield.

g. Figures represent the total Soviet sown area.

h. Figures represent the total Soviet availability for human consumption, including grain consumed directly in any form.

i. Figures represent total industrial production by raw weight.

j. Figures represent total industrial production.

k. Champagne is included.

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Table 16
Production of Nonfood Consumer Goods in the USSR
1928, 1937, 1940, and 1948-55

Item	Unit	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955
Soft goods												
Textiles												
Cotton fabrics	Million meters	2,700	3,400	3,900	3,200	3,600	3,900	4,800	5,000	5,300	5,600	5,900
Silk and artificial silk fabrics	Million meters	9.6	59	77	82	110	130	170	220	400	520	530
Woolen fabrics	Million meters	87	110	120	120	150	160	180	190	210	240	250
Linen fabrics	Million meters	170	280	280	180	230	280	310	260	290	290	300
Clothing and footwear												
Sewn garments	Billion 1952 rubles	7.4	37	46	N.A.	N.A.	27	31	36	38	46	51
Knitwear												
Knit outerwear	Million pieces	1.4	45	59	30	38	47	59	74	76	76	85
Knit underwear	Million pieces	6.9	110	120	95	120	150	190	240	280	330	340
Hosiery	Million pairs	68	410	480	280	470	470	590	590	610	670	770
Footwear												
Rubber	Million pairs	36	85	70	73	94	110	120	120	110	120	130
Leather	Million pairs	58	180	210	130	160	200	240	240	240	260	270
Other soft goods												
Cigarettes	Billions	50	100	100	92	110	120	140	160	180	200	210
Soap	Thousand metric tons	310	490	700	420	720	820	760	780	840	1,000	1,100
Durable goods												
Refrigerators	Thousands	None	None	Negligible	Negligible	Negligible	1.2	20	31	49	94	150
Sewing machines	Thousands	290	510	180	360	480	590	665	800	990	1,300	1,600
Washing machines	Thousands	None	None	Negligible	Negligible	Negligible	300	N.A.	N.A.	3,500	46,000	87,000
Furniture	Million 1952 rubles	105	1,300	1,800	N.A.	N.A.	2,000	2,600	4,400	5,000	6,400	6,900
Bicycles	Thousands	11	540	260	340	500	650	1,200	1,600	1,900	2,400	2,900
Watches	Hundred thousands	0.9	4.0	2.8	3.1	6.0	7.6	9.6	10	13	16	20
Cameras	Thousands	None	350	350	160	170	260	360	460	500	770	1,000
Television receivers	Thousands	None	None	None	3	5	10	20	42	95	280	550
Household radio receivers												
Class 1	Thousands				18	18	16	22	44	62	190	300
Class 2	Thousands				150	170	53	44	110	170	190	300
Class 3	Thousands				180	180	61	65	66	260	570	730
Class 4	Thousands				180	490	910	1,100	1,100	1,100	1,900	2,200
Total household radio receivers			200	160	520	860	1,000	1,200	1,300	1,600	2,900	3,500

a. Because of rounding, figures do not add to totals shown.

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Table 17

Indexes of Aggregate Household Consumption in the USSR a/
1928, 1937, 1940, and 1948-55

Item	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955 = 100
Aggregate household consumption											
Excluding medical and educational services	59	64	74	61	67	72	78	83	88	97	100
Including medical and educational services	55	64	72	62	68	73	78	83	89	97	100
Consumer goods	64	66	74	60	66	72	78	83	89	97	100
Food											
Laspeyres index	77	70	79								100
Paasche index	83	71	80								100
Arithmetic mean	80	70	80	67	72	77	80	86	90	98	100
Nonfood consumer goods											
Laspeyres index	20	55	60								100
Paasche index	29	54	59								100
Arithmetic mean	24	54	59	44	54	59	71	76	84	95	100
Consumer services											
Excluding medical and educational services	36	56	72	65	69	74	79	84	88	96	100
Including medical and educational services	28	57	67	66	71	76	81	85	89	96	100

a. The indexes of consumer services presented in this table have a margin of error of plus or minus 10 percent; the other indexes, a margin of error of plus or minus 5 percent.

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Table 17

Indexes of Aggregate Household Consumption in the USSR
1928, 1937, 1940, and 1948-55
(Continued)

Item	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955 = 100
Consumer services (continued)											
Medical services	11	49	44	62	66	74	79	84	90	94	100
Educational services	18	65	70	75	79	82	86	91	92	98	100
Housing and utilities	57	59	76	73	77	81	85	88	92	95	100
Transportation	14	53	61	54	58	65	71	79	83	96	100
Communications	6	28	33	66	67	67	72	78	83	89	100
Personal services and entertainment	21	65	97	61	67	73	80	83	88	95	100

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Table 18

Indexes of Population and Household Consumption Per Capita in the USSR a/
1928, 1937, 1940, and 1948-55

Item	1955 = 100									
	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954
Population	77	84	97	89	91	92	94	95	97	98
Aggregate household consumption										
Excluding medical and educational services	77	76	76	68	74	78	83	87	91	99
Including medical and educational services	71	76	74	70	75	79	83	87	92	99
Consumer goods	83	78	76	67	73	78	83	87	92	99
Food										
Laspeyres index	100	83	81							100
Paasche index	108	84	82							100
Arithmetic mean	104	83	82	75	80	84	85	90	93	100
Nonfood										
Laspeyres index	26	65	62							100
Paasche index	38	64	61							100
Arithmetic mean	31	64	61	49	60	64	76	80	87	96
Consumer services										
Excluding medical and educational services	47	66	74	73	76	80	84	88	91	98
Including medical and educational services	36	67	69	74	78	82	86	89	92	98

a. The indexes of consumer services presented in this table have a margin of error of plus or minus 10 percent; the other indexes, a margin of error of plus or minus 5 percent.

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Table 18

Indexes of Population and Household Consumption Per Capita in the USSR
1928, 1937, 1940, and 1948-55
(Continued)

Item	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955 = 100
Consumer services (continued)											
Medical services	14	58	45	70	73	80	84	88	93	95	100
Educational services	23	77	72	84	87	89	92	95	95	100	100
Housing and utilities	74	70	78	82	85	88	91	92	95	96	100
Transportation	18	63	63	61	64	71	76	83	86	98	100
Communications	8	33	34	74	74	73	77	82	86	90	100
Personal services and entertainment	27	77	100	68	74	79	85	87	91	96	100

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Table 19

Aggregate Household Consumption of Food in the USSR a/
1928, 1937, 1940, and 1948-55

Item	Unit	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955
Fish b/	Million metric tons	0.67	1.0	1.0	1.0	1.0	1.1	1.4	1.5	1.4	1.6	1.6
Meat c/	Million metric tons	3.2	2.1	2.5	2.0	2.3	2.6	2.5	2.8	3.0	3.3	3.3
Fluid milk d/	Million metric tons	27	20	23	15	15	16	16	15	15	16	17
Potatoes e/	Million metric tons	19	32	37	30	33	34	26	35	36	34	33
Vegetables f/	Million metric tons	9.2	15	17	14	14	14	13	14	15	15	17
Sugar g/	Million metric tons	1.2	2.3	2.1	1.8	2.0	2.4	2.8	3.3	3.6	3.8	4.0
Vegetable oil h/	Million metric tons	0.19	0.29	0.43	0.33	0.44	0.51	0.56	0.62	0.85	0.91	0.91
Laughter fats i/	Million metric tons	0.40	0.25	0.30	0.25	0.28	0.31	0.30	0.33	0.37	0.40	0.40
Butter j/	Million metric tons	0.04	0.13	0.19	0.29	0.32	0.34	0.35	0.37	0.38	0.39	0.46
Cheese k/	Million metric tons	0.01	0.02	0.04	0.04	0.04	0.05	0.06	0.07	0.08	0.09	0.11
Beer l/	Million decaliters	27	88	125	70	97	130	150	160	180	190	185
Canned goods l/	Million 400-gram cans	300	440	740	500	740	950	1,120	1,250	2,380	2,730	2,730

a. Figures are based on production data in Table 16 (p. 29, above). For the remaining commodities listed in Table 16, consumption is believed to be substantially equivalent to production.

b. Foreign trade in fish was considered to be negligible. Canned fish was deducted on the basis of 15 percent of total canned goods. Twenty-eight percent of production was deducted for spoilage and waste.

c. Imports of meat were less than the margin of error of the estimates of production. Twelve percent was deducted for spoilage and waste, and canned meat was removed from the total on the basis of 16 percent of total canned goods.

d. Adjustments were made for (1) butter and cheese on the basis of 20 kilograms (kg) of milk to 1 kg of butter or cheese, (2) milk fed to livestock at 7 percent of production, and (3) canned milk on the basis of 7 percent of total canned foods.

e. Estimates of production were adjusted to eliminate feed and waste; seed was computed at 1.75 tons per hectare planted. Industrial use for the manufacture of alcohol was computed at 1 ton of potatoes per 27.5 gallons of alcohol.

f. Total production was reduced by 12 percent to cover feed, seed, and waste. Deductions for canned vegetables were computed at 30 percent of total production of canned food.

g. Estimates for sugar are based on planned production. When plans were not met, availability was increased through imports and withdrawal from state reserves.

h. Vegetable oil used for food is estimated at 60 percent of the total available supply, that is, production plus imports.

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Table 19

Aggregate Household Consumption of Food in the USSR
1928, 1937, 1940, and 1948-55
(Continued)

i. The use of slaughter fats for food is estimated at 85 percent of production.
j. The estimates of production are considered to be equivalent to consumption for the period 1948-55.
k. Planned production is estimated as the supply available for consumption. Reserves were used when plans were not met.
l. Estimates of production were adjusted to take into account state reserves. For the general trend, it was assumed that the normal accumulated reserve in any one year was equivalent to production in the following year. An average refreshing period of 4 years was taken into account. The general trend was modified by assuming (1) that there was an increase in net sequestration during the Korean War (1950-52) at the annual rate of 35 percent of production and (2) that withdrawals exceeded sequestration by 200 million cans annually during the "new course" (1953-54). It was assumed that net sequestration amounted to 50 percent of production in 1937 and 25 percent in 1940. Because foreign trade accounts for less than 10 percent of aggregate production, no adjustments were made for such trade except for canned fish. It is estimated that 50 percent of the canned fish is exported.

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Table 20

Aggregate Household Consumption of Nonfood Consumer Goods in the USSR a/
1928, 1937, 1940, and 1948-55

Commodity	Unit	1928	1937	1940	1948	1949	1950	1951	1952	1953	1954	1955
Cotton fabrics b/	Million meters	2,400	2,300	2,200	2,100	2,400	2,500	3,200	3,200	3,400	3,400	3,600
Silk and artificial silk fabrics b/	Million meters	7.2	45	60	65	87	100	145	190	340	440	445
Woolen fabrics b/	Million meters	72	49	44	76	86	87	97	94	98	120	110
Linen fabrics b/	Million meters	59	55	45	31	41	53	56	24	31	12	10
Soap c/	Thousand metric tons	310	495	700	425	720	820	820	820	865	1,000	1,100

a. For the remaining commodities listed in Table 17 (p. 30, above), consumption is believed to be substantially equivalent to production.

b. Household consumption of textile fabrics was estimated by subtracting from production the fabrics consumed in producing sewn garments and in other industrial uses. Consumption of fabrics by the sewing industry was estimated by applying the planned relationship between fabric inputs and the output of sewn garments in 1942. Available data on the sewn garment product mix indicate that this relationship may have remained relatively stable during most of the period. Other industrial consumption of fabrics was estimated at constant fractions of total production. Because foreign trade in textile fabrics amounts to less than 5 percent of domestic production, no adjustment was made for such trade.

c. Household consumption of soap was estimated by adjusting production in 1951 and 1952 to take account of probable reductions in state reserves which were employed to bridge partly the gap between planned and actual production in these years. Because foreign trade in soap is negligible, no adjustment for such trade was made.

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Table 21

Comparison of Production Per Capita of Food
Between the USSR and Other Countries a/
Selected Years, 1937-54

Item	Unit	1937	1950	1953	1954
Flour	Kilograms				
USSR		200	204	203	206
US		68.9	67.5	63.1	62.1
UK		82.9	84.0	80.4	76.4
Meat	Kilograms				
USSR		14.2	16.8	19.2	20.4
US		N.A.	66.3	70.3	70.9
UK		N.A.	26.3	26.6	32.4
France		N.A.	N.A.	50.0	55.1
West Germany		N.A.	N.A.	39.5	40.4
Sugar	Kilograms				
USSR		14.5	13.8	17.9	13.4
US		15.4	13.2	12.2	13.9
UK		11.5	10.3	12.5	15.9
France		N.A.	N.A.	23.7	34.2
Japan		2.4	0.13	0.23	0.29
Butter	Kilograms				
USSR		0.98	1.75	1.87	1.90
US		7.5	4.9	N.A.	4.6
UK		0.9	0.5	N.A.	0.6
France		5.0	N.A.	6.4	7.1
West Germany		N.A.	5.4	5.7	6.0

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Table 21

Comparison of Production Per Capita of Food
Between the USSR and Other Countries
Selected Years, 1937-54
(Continued)

<u>Item</u>	<u>Unit</u>	<u>1937</u>	<u>1950</u>	<u>1953</u>	<u>1954</u>
Cheese	Kilograms				
USSR		0.14	0.26	0.41	0.47
US		2.30	3.57	3.81	3.87
UK		0.82	1.12	1.74	1.63
France		6.75	N.A.	6.88	N.A.
West Germany		N.A.	2.83	3.28	3.12
Wine	Liters				
USSR		0.36	0.79	1.48	1.69
US		3.4	5.9	4.7	3.9
France		133	N.A.	137	121
Beer	Liters				
USSR		5.2	7.1	9.4	9.3
US		53.0	68.0	66.0	67.0
UK		83.0	82.0	80.0	76.0
France		59.0	N.A.	20.0	19.0
West Germany		N.A.	38.0	60.0	62.0

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Table 22

Comparison of Production Per Capita of Nonfood Consumer Goods
Between the USSR and Other Countries a/
Selected Years, 1937-54

Item	Unit	1937	1950	1953	1954
Cotton fabrics	Meters per person				
USSR		20.4	21.4	27.6	28.7
US		61.4	60.5	58.3	55.1
UK		70.8	38.1	33.4	35.7
Wool fabrics	Meters per person				
USSR		0.66	0.88	1.1	1.23
US		3.0	2.4	1.9	1.6
Leather footwear	Pairs per person				
USSR		1.08	1.10	1.25	1.33
US		3.2	3.5	3.3	3.2
UK		2.8	2.8	2.7	2.7
West Germany		N.A.	1.1	1.3	1.3
Japan		1.1	1.15	1.23	1.3

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Table 22

Comparison of Production Per Capita of Nonfood Consumer Goods
Between the USSR and Other Countries
Selected Years, 1937-54
(Continued)

Item	Unit	1937	1950	1953	1954
Cigarettes	Number per person				
USSR		610	684	963	1,050
US		1,316	2,596	2,644	2,481
UK		1,470	2,246	N.A.	N.A.
France		428	N.A.	867	930
West Germany		N.A.	504	760	818
Japan		607	751	1,001	1,090
Radios	Persons per radio				
USSR		836	186	120	66
US		16	11	12	16
UK		26	28	50	26
France		N.A.	N.A.	50	45
West Germany		N.A.	21	20	19
Passenger cars	Persons per car				
USSR		N.A.	3,388	3,097	2,438
US		33	23	26	29
UK		N.A.	96	85	66
France		222	N.A.	116	98
West Germany		N.A.	221	135	96

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APPENDIX C

METHODOLOGY

I. Basic Data.

A. Production.

1. Consumer Goods.

Estimates of production of the individual commodities employed in the construction of the indexes were obtained or derived from official statements contained in the Soviet press and in periodical literature except where minor revision was required by new data published in source 13/. Complete methodology and documentation of the estimates of production of food are contained in source 14/ and are not repeated here.

In general, production of nonfood consumer goods was estimated by starting from the goals of the Sixth Five Year Plan (1956-60), which were announced by the Soviet government as absolute figures, and working backward by means of official announcements of annual percentage changes. Gaps of no more than a single year were filled either by assuming no change from the preceding year or by semilogarithmic interpolation, depending upon the individual circumstance. Estimates of production of most items in 1940 were derived from the 1953 decree on consumer goods, in which goals for 1955 were given as absolute figures and were related to actual production in 1950 and 1940. Data for 1937 and 1928 were obtained from official statistical abstracts, trade journals, or from announcements of the Third Five Year Plan (1938-42).

2. Consumer Services.

a. Medical Services.

The total value of medical services was estimated from state budget appropriations, which include contributions from the Central Union of Trade Unions, the Red Cross, industrial cooperatives, and so forth. Military, industrial, and collective farm expenditures have not been included, because of lack of data. Indications are, however, that these expenditures are insignificant in the total.

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Total medical expenditures thus estimated were then broken down by type of expenditure on the basis of relationships existing before World War II, as follows (in percent) 15/:

Wages	51
Hospital feeding	35
Capital investment	8
Maintenance and other expenses	6
Total	<u>100</u>

Capital investment and expenditures for food were moved by an index of hospital beds. The expenditures were then converted to current prices by means of appropriate indexes of investment and state food prices. The wage bill for the year in question was obtained independently. The residual remaining after the three components mentioned above had been deducted was assumed to represent expenditures on equipment and nonfood supplies. Capital investment was then deducted from the total, and the remaining items were converted to constant prices in the following manner. The ruble value of the wage was deflated by an index of medical wage rates; that of hospital feeding, by an index of state retail food prices; and that of expenditures for equipment and supply, by an index of state nonfood prices.

b. Education.

State budget data on educational allocations include, in addition to current expenditures on education as strictly defined, allocations for some printing and publishing, for propaganda work, for the theater, for other social organizations, and for capital investment. To obtain current expenditures for education, the wage and purchased goods components of total educational expenditures were estimated on the basis of relationships existing before World War II. These components were moved to 1955 by an index of the number of teachers in each wage category, weighted by wages paid. The residual remaining in the budget after deducting the wage and purchased goods components was assumed to consist of capital investment in education and of noneducational items. The wage and purchased goods components were then converted to 1955 prices by an index of educational wage rates and by an index of state nonfood retail prices, respectively.

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c. Other Services.

The index of housing and public utilities was constructed from a time series of the total availability of housing in terms of square meters of floor space. Public and private housing were priced at prices paid by households for public housing, including the cost of heat and public utilities. Data on private housing are available from official Soviet sources in total number of units. These data were converted to square meters of living space at the rate of 15 square meters per unit. 16/

The index of transportation was constructed by pricing at the fares paid by households in 1955 a time series of passenger kilometers on rail, streetcar, bus, inland waterway, and ocean passenger traffic. Highway transport and taxi service were excluded because of the lack of adequate data.

The index of communications was constructed by pricing at the rates paid by households in 1955 a time series in physical units of telegrams and telephone calls sent.

Personal services and entertainment were assumed to bear a fixed relation to income and hence were moved by the total of social insurance payments to the state budget.

B. Household Consumption.

In general, estimates of household consumption of consumer goods were derived from the estimates of production by adding net imports (where significant) and subtracting seed, feed, waste, industrial use, and net increases in state reserves. Double counting of items at different stages of processing was eliminated. For example, the milk required to produce canned milk, butter, and cheese was subtracted from the fluid milk series. Because of lack of data, however, it was not possible to make this adjustment for confections, which make substantial use of sugar, milk, and flour for pastries. Adjustments to services were made at the weighting stage and are discussed under the section on weighting, below.

C. Prices.

The commodity prices which are employed as weights in the index are official prices prevailing at state and cooperative stores in Moscow. Prices at collective farm market were not taken into account.

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Prices at collective farm markets range from 5 to 20 percent higher than prices at state and cooperative stores. Distortion of the index occasioned by the neglect of prices at collective farm markets would arise from underweighting (by using prices lower than those actually paid) in the index those commodities obtained by households from collective farm markets, principally meat, vegetables, and dairy products. The effect of the neglect of these prices on the index, however, is likely to be minimal.

Because the collective farm markets trade in almost all food products, the principal distortion would not arise in comparisons of individual food products but in comparisons of food products, taken as a whole, with other consumer goods and services. This potential distortion has been corrected, however, in the weighting of the three principal components of the index discussed in the following section.

The distortion resulting from the use of prices prevailing in Moscow is more serious. Although it has been demonstrated that price movements in Moscow were generally indicative of national price movements, for at least a part of the period, 17/ relative prices in Moscow are not accurately representative of national relative prices. During the early part of the period the Soviet policy of zonal pricing contributed to this distortion, but after 1947, when zonal pricing of many of the products included in the index was discontinued, urban-rural price differentials were the principal causes of distortion. Thus, because of the use of prices in Moscow as weights, particularly during the period since 1948, the index of household consumption applies more accurately to urban than to rural households. Again, however, the importance of this distortion is tempered. Because of the close correspondence among movements of the quantity relatives for the individual commodities within each of the principal components of the index since 1937, even large differences in the weights used -- that is, in relative prices -- would have comparatively small effects on the resultant indexes.

In general, the official prices at state and cooperative stores in Moscow were obtained in absolute terms for the year 1952 from official prices published occasionally in the Soviet press and from official reports. Most of the prices received apply to items more narrowly defined than are the individual items for which estimates of consumption are given in this report. To obtain prices to match the data on consumption, average prices for entire categories --

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for example, all types of leather footwear -- individual items were averaged by using the Soviet product mix as weights. The prices thus averaged were applied to the entire period 1928-55. Because the product mix was available in the greatest detail for that year, the planned product mix for 1941, which represented a point midway in the period covered, was used.

To obtain prices for 1955, the prices for 1952 previously obtained were adjusted in accordance with information contained in the annual Soviet official price decrees for the years 1948 through 1954. Up to 1955 these decrees are believed to reflect changes in prices of consumer goods. Except where specific information to the contrary was available, prices in 1954 were assumed to be identical with prices in 1955.* The index of 1940 was weighted by prices in 1937. To obtain prices in 1937, prices in 1952 were adjusted to 1948 by means of the official decrees on prices and then moved back to 1937 by means of an index of consumer prices. 19/

Because of the extensive coverage of the prices of such individual items as footwear and soap, which were available from official sources in 1936, average prices were computed for 1936 (weighted by the product mixes contained in the 1941 Plan) and then were moved backward to 1928 and forward to 1955.

II. Weighting.

A. Treatment of Medical and Educational Services.

In constructing an index -- which in the case of the index presented in this report is essentially an average -- it is necessary to impute weights to the various components in accordance with some criterion. When constructing indexes of consumption or production for the purpose of drawing conclusions as to standards of living, the appropriate criterion is that the individual items be weighted in proportion to the marginal amounts of satisfaction enjoyed by consumers from obtaining

* This assumption agrees with the official Soviet price index, which shows no changes in prices between 1954 and 1955. 18/

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these items.* It can be shown that in general this criterion can be satisfied** by using as weights market prices -- that is, prices which include indirect taxes and exclude subsidies. 20/

One of the principal problems connected with employment of this criterion lies in the treatment accorded to wholly subsidized state services. Unquestionably the individual pays for these services through taxation, direct or indirect. Because the amount of payment is not directly related to the amount of the service consumed, however, the market price for these services is equal to zero, and the service is omitted from the index. This treatment is standard for governmental services such as general administration and for police and military services.

Medical and educational services also are almost entirely subsidized in the USSR. To include these services in the index of household consumption at cost probably would be to overstate their importance in the index***; to omit them would be to omit from the index a class of consumer services of great importance to Soviet economic welfare.

As a practical matter, the problem of the treatment of medical and educational services has considerable importance in the construction of the index presented in this report for the period 1928 to 1940

* When constructing these indexes for the purpose of drawing conclusions concerning the allocation of resources, the appropriate criterion is that the individual items be weighted in proportion to their marginal cost of production, thus resulting in a different index.

** Because of the substantial amount of nonprice rationing that prevails (for example, queueing), this criterion is satisfied only imperfectly in the USSR. If nonprice rationing tends to apply to all consumer goods and services within each of the component indexes more or less equally, however, its total effect on overweighting or underweighting the prices of some consumer goods and services may be of minimum importance.

*** This argument is based on the belief that, despite the existence of some rationing, Soviet households are still consuming more medical and educational services than they would if they were charged the full cost of providing those services -- that is, the increment in satisfaction per unit expenditure on these services is less than the increment in satisfaction per unit expenditure on other goods and services.

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because the growth of medical and educational services differed considerably from that of the other services. Consequently, alternative indexes have been computed, one including and one excluding medical and educational services, which are to be considered as upper and lower limits, respectively, in the growth of household consumption of consumer services and hence of total household consumption between 1928 and 1955.

B. Imputations.

Inclusion of consumption of food products by producers and consumption of services rendered by owner-occupied dwellings in the index, weighted in accordance with the criterion discussed in the preceding section, raises a problem different from that raised by medical and educational services.

Because the goods consumed by the producers of these goods and the services rendered by owner-occupied dwellings are not exchanged, they have no market price. Unlike medical and educational services, however, market prices can be imputed to them by viewing their consumption as the result of a choice by farmers and house owners between consuming their own production or living in their own houses and the alternative of selling the goods or renting the houses. In effect, then, the cost of consuming these goods or using these houses is the cost of selling or renting them.

Accordingly, the services rendered by owner-occupied dwellings are valued at rents charged for public housing.

Because of inadequate data, however, it was not possible to separate consumption of individual food products by the producer from total consumption for all the years covered by the index. It was therefore necessary to weight total consumption of food by state store prices. This weighting introduces a small bias into the index of food and into the index of total household consumption.

C. Combining Food, Nonfood Consumer Goods, and Consumer Services.

As was pointed out in I, B, above, the index of total household consumption is to be viewed as consisting of three component classes of consumption, each of which is represented by a sample of items. To avoid permitting the importance of each of these classes in the index to be dependent solely upon the accident of sample size and also to adjust the weighting of food in the index to take account of the higher

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prices of food prevailing in the collective farm market, weights for combining indexes for each of the 3 classes into a single index were estimated for 1 year, 1955.*

1. Ratio of Food to Nonfood Consumer Goods.

Total cash expenditures by households on consumer goods in 1953 are estimated in 1955 prices -- after deducting sales to institutions from total retail sales, including sales by collective farm markets -- at 441 billion rubles, consisting of 396 billion rubles for sales by state and cooperative stores and 45 billion rubles for sales by collective farm markets. About 58 percent of the sales by state and cooperative stores consist of sales of food; all of the sales of collective farm markets are assumed to be sales of food. The estimate of total cash expenditures by households then comes to 305 billion rubles for food and to 202 billion rubles for nonfood consumer goods. Because this report includes consumption by producers and military and forced labor subsistence in household consumption, these categories were added to cash expenditures to obtain an estimate of total household consumption. Expenditures in 1953 for military subsistence are estimated at 7.8 billion rubles for food and 3.4 billion rubles for nonfood consumer goods. Expenditures in 1953 for subsistence of forced labor is estimated at 14.4 billion rubles for food. Consumption of farm products by producers is estimated at 179 billion rubles, a figure which was obtained by (a) applying the percentages of individual farm commodities consumed by producers 21/ to the estimates of production in 1953 presented in Table 16,** (b) pricing the results at estimated prices charged by state and cooperative stores in 1955, including the turnover tax, and (c) adding the results. The resulting totals for food and for nonfood consumer goods in 1953 (in 1955 prices) were moved to 1955 by the separate indexes of food and nonfood consumer goods. Thus the following weights for food and nonfood consumer goods for 1955 were obtained:

<u>Category</u>	<u>Billion Rubles</u>	<u>Percent</u>
Food	504	71
Nonfood consumer goods	206	29
Total	<u>710</u>	<u>100</u>

* The weights for combining the three principal classes are computed only for 1955. Data for other years are unsatisfactory for making this computation.

** P. 29, above.

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2. Ratio of Consumer Goods to Consumer Services.

To adjust for possible errors in estimating the magnitudes of individual services, valued at prices actually paid by households, as well as to include services as a whole in the index in proportion to actual expenditures for these services required a percentage distribution of household cash expenditures for all consumer services except medical and educational services.* A percentage distribution which is believed to be applicable to 1955 was obtained from source 22/. Although these data are presented by the source as a textbook illustration, they conform so closely at points of overlap with almost all other available data that they are believed to be based on actual statistical data available to the Soviet government. According to this source, cash expenditures on consumer services amount to about 16 percent of total cash expenditures by households on consumer goods and services, broken down as follows:

<u>Service</u>	<u>Percent of Total Household Cash Expenditures</u>
Housing and utilities	5.6
Transportation	6.5
✓ Communications	1.1
Personal services and entertainment	3.2
Total	<u>16.4</u>

* This distribution of cash expenditures on consumer services applies primarily to urban households, thus overstating the true importance of services in the index when it is applied to rural households. The true index accurately representing rural as well as urban consumers will lie within the limits bounded by the index of total consumption and by the index of consumption of consumer goods alone (see Table 14, p. 27, above). In the case of 1928 relative to 1955, the true index would lie between the limits of 59 (the index of total consumption excluding medical and educational services) and 64 (the index of consumption of consumer goods.)

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For purposes of weighting, if cash expenditures by households on consumer goods alone in 1955 amounted to 507 billion rubles -- the total value of retail sales to households in 1955 -- total cash expenditures by households would have had to equal 606 billion rubles and cash expenditures on consumer services alone, 99 billion rubles.

Imputed rent on owner-occupied dwellings in 1955 is estimated at 32 billion rubles. The total costs of medical and educational services, excluding investment, are estimated at 36 billion rubles and 58 billion rubles, respectively. These figures give the following weights for services in 1955, taken as a whole and individually, including imputations, with and without medical and educational services:

<u>Category of Consumption</u>	<u>Excluding Medical and Educational Services</u>		<u>Including Medical and Educational Services</u>	
	<u>Billion Rubles</u>	<u>Percent</u>	<u>Billion Rubles</u>	<u>Percent</u>
Consumer goods	710	84.4	710	75.9
Consumer services				
Housing and utilities	66	7.8	66	7.1
Transportation	40	4.8	40	4.3
Communications	7	0.8	7	0.7
Personal services and entertainment	19	2.2	19	2.0
Medical services			36	3.8
Educational services			58	6.2
Total consumer services	<u>132</u>	<u>15.6</u>	<u>226</u>	<u>24.1</u>
Total consumer goods and services	<u>842</u>	<u>100.0</u>	<u>936</u>	<u>100.0</u>

D. The Laspeyres and the Paasche Indexes.

Relative prices tend to change through time -- for example, the price of shoes relative to the price of meat -- in response to changes in economic policy -- for example, changes in turnover tax rates -- or to changes in relative costs of production, and so forth. Experience indicates that the longer the time elapsed, the greater the changes that

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take place. It is therefore important in making long-range comparisons of economic magnitudes by means of index numbers weighted by prices that some account be taken of the possibility of changing prices through time.

One way to measure the importance of such changes is to compute one index based on the relative importance of the included items in the earlier year of a binary comparison (the Laspeyres index) and a second based on the relative importances of the included items in the later year of the comparison (the Paasche index). The difference between the results of the two computations is a measure of the effects of relative price changes between the two periods; the greater the difference the greater the change in relative prices, and so forth. Neither set of weights is to be preferred to the other, and hence there is no criterion for choosing between the two indexes; both are equally good estimates of the same thing, one index giving an upper boundary to the true index, the other a lower boundary. Computation of a mean, and either an arithmetic or a geometric mean is equally good, is made for convenience and is meaningful only when the Laspeyres and the Paasche indexes do not differ widely.

On occasions when the Laspeyres and Paasche indexes differ widely, the usefulness of either as a measure of the percentage change in quantity levels between two, usually distant, periods of time is open to question. In such cases a chain index, forged from linked comparisons between adjacent periods of time, generally is constructed to bridge the gap.

In this report the Laspeyres and Paasche indexes were computed for comparisons between 1955 and 1928 in 1928 and 1955 prices, between 1955 and 1937 in 1937 and in 1955 prices, and between 1955 and 1940 in 1937 and in 1955 prices. Because these indexes do not differ significantly except for the comparison between 1928 and 1955, where there is some difference, construction of a chain index would add little to accuracy except for the period 1928 to 1937.

Had sufficient data been available, it would have been desirable to construct weights for combining the three principal classes of consumption as defined in this report for 1928 or for 1937, as was done for 1955. Such weights would have permitted a Laspeyres-Paasche index comparison for the index of consumption as a whole similar to that made for the two indexes of consumption alone. The principal result of computing a Laspeyres index in this case would have been to raise the increase in the index of consumption between 1928 and 1955 by decreasing substantially the weight of food products in the index.

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III. Comparison of Results of This Report with Those of Other Studies.

A survey of literature on the subject indicates two other comprehensive studies in which an attempt has been made to measure changes in Soviet levels of consumption between 1928 and a recent year, those by Jasny and Chapman. 23/ In both of these studies, changes in levels of consumption were measured by deflating Soviet money incomes by an index of consumer prices. Because the Chapman study is the more comprehensive of the two, the indexes in this report will be compared only with those in that study.

In principle, both the method employed in this report -- that is, the construction of an index of consumption per capita based on a time series for consumption of individual consumer goods and services, weighted by market prices, including turnover tax -- and the method of deflating per capita income net of direct taxes and compulsory bond purchases by an index of consumer prices should lead to identical results,* because they are simply two methods for reaching the same goal.

In practice, however, the two indexes should not be expected to agree, because the Chapman index applies only to the real wages of "workers and employees" primarily urban, expressed per worker or employee. Thus the Chapman index does not take into account, as does the index in this report, changes in the consumption of services rendered by owner-occupied dwellings, pertaining primarily to the rural population, consumption of farm products by producers, or rural cash incomes.

Without adjustment, the Chapman index is not comparable to the index presented in this report as an index of urban household consumption per capita. Because the Chapman index reflects real wages relative to the labor force alone rather than to the labor force including its dependents, the Chapman index would differ from an index of consumption per capita for urban consumption to the extent of changes in the worker and employee dependency ratio.

* Omitting savings, which are small relative to total income.

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A comparison of the index presented in this report with Chapman's results, adjusted for changes in the dependency ratio, is presented below* (1952 = 100):

	<u>1928</u>	<u>1937</u>	<u>1948</u>	<u>1952</u>
Chapman index**	67	70	54	100
Present index (per capita)	88	87	78	100

A comparison of the two indexes indicates that between 1928 and 1952 the consumption per capita by workers and employees and their dependents increased considerably more than did consumption by the population as a whole, with increases ranging from 49 percent to 14 percent, respectively. This comparison suggests that during this period consumption per capita by the part of the population which is primarily urban increased much more than did consumption per capita by the rural, primarily collective farm, population.

* Medical and educational services are excluded in both indexes.

** This index uses 1937 weights.

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APPENDIX D

GAPS IN INTELLIGENCE

There are deficiencies in the estimates of production and consumption of many of the individual consumer goods utilized in this report. For example, the series on fish includes state catch only and excludes collective farm catch, which may be an appreciable portion of the total. Many of the adjustments for double counting of items included in the index were based on relationships observed for only a single year. It is doubtful, however, that future improvements in these data will effect significant changes in the index.

More important are the deficiency in the estimates for flour and the lack of estimates for bread. Because of the absence of postwar Soviet data on flour and bread, it was necessary to derive estimates of consumption of flour from estimates of production of bread grain and to exclude bread from the index altogether. Improvement in the availability of these data could, because of their importance, result in an alteration of the food index.

Much more work is required on consumer services. Whereas only minor revisions in trends are anticipated from a general improvement in the estimates for consumer services, substantial changes in the present estimates of their absolute magnitudes, or total cost of production, could be expected. Such an improvement may make possible an independent check of the weights for consumer services employed in the construction of the index.

More work is also required on consumption of food products by producers, particularly in determining year-to-year changes for individual products. This work is necessary in order to weight the amounts consumed by producers at prices paid to farmers rather than at state store prices, as was necessary in this report.

It is believed, however, that possible changes in the index of total household consumption occasioned by the results of new research and by the release of official Soviet data not now available will be comparatively minor and that the general conclusions of the report pertaining to this index should remain relatively unaffected.

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APPENDIX E

SOURCE REFERENCES

The estimates of production and consumption of individual consumer goods and services in this report were obtained almost entirely from overt source material, including Soviet newspapers, periodicals, trade journals, and monographs. Although no attempt at deliberate falsification has been discovered, it was found that data from these sources must be interpreted with extreme caution because of what amounts to deliberate Soviet casualness with definitions. Much of the research effort in the preparation of these estimates was devoted not to obtaining the figures but to arriving at their correct interpretations. Many of the deficiencies that remain in this report are attributable to this source of error.

For information on Soviet consumer prices since 1948, official price data were utilized where available, but of necessity primary reliance was placed on the State Department reporting and on covert sources, including defectors and returnees.

25X1A5a1 The report also has been heavily dependent for price information on the [REDACTED] Almost all of the information on Soviet consumer prices before 1948 was obtained from [REDACTED] 25X1A5a1 studies.

A series of reports on Soviet consumer goods industries before 1948 published by the State Department, Office of Intelligence Research, has been a valuable aid in the interpretation of prewar Soviet statistics on consumer goods. The most important single source on production of consumer goods, however, has been the new statistical handbook, Narodnoye khozyaystvo SSSR (The National Economy of the USSR), 1956, UNCLASSIFIED.

S-E-C-R-E-T

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Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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